



# Minidoka Irrigation District

## Project Spotlight

### Lateral 24 Pipeline

**Project Overview:** As part of ongoing efforts to improve water conservation and delivery reliability, MID identified Lateral 24 as a priority for modernization. This section of the lateral is part of the District's oldest infrastructure and is located in an area with high sand content, resulting in significant water loss and ongoing maintenance challenges.

Due to the surrounding soil conditions, wind-blown sand and sediment regularly entered the ditch, reducing capacity and efficiency while increasing operational demands. To address these issues, MID converted approximately 1,420 feet of open channel into a buried 24-inch PVC pipeline, tying into an existing pipeline system. This improvement reduces water loss, improves flow control, and enhances delivery reliability, allowing the District to better serve water users while maximizing available water resources. The project was funded in part through the Bureau of Reclamation's WaterSMART Program .



*Lateral 24 open channel prior to project start  
Photo credit : Shawna Adams, November 2022*

**Challenges Faced:** Prior to construction, Lateral 24 presented ongoing operational challenges due to its location in sandy soils. Wind-blown sand frequently filled the ditch, requiring regular excavation before and during the irrigation season. This constant maintenance reduced efficiency and placed additional demands on District resources.

The sandy conditions also contributed to significant seepage losses, limiting the amount of water available to downstream users. In addition, sediment carried through the system caused damage to irrigation equipment, including pumps, leading to increased costs and maintenance for water users. These combined issues made the lateral increasingly difficult to manage and underscored the need for improvement.

#### PROJECT HIGHLIGHTS

**Location:** Acequia, Idaho

**Total Project Cost:** \$143,942

**USBR WaterSmart:** \$71,971

**MID:** \$71,971

**Start:** October 2023

**Finish:** January 2024



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**The Solution:** To eliminate seepage losses and reduce maintenance demands, MID replaced the open ditch with an enclosed pipeline system. Installing 24-inch PVC pipe allows water to be conveyed efficiently with minimal loss while preventing sand intrusion into the system.

By piping this section and connecting it to an existing pipeline, MID improved system continuity and operational control. This approach not only addresses the immediate challenges of sand and seepage but also provides a long-term solution that improves reliability and efficiency across the lateral.

**Construction:** Construction of the Lateral 24 pipeline was completed in-house by MID crews during the maintenance season. Work began with removal of the existing sand-filled ditch and excavation to establish proper depth, alignment, and grade.

Because native soils were not suitable for bedding, crews imported appropriate materials to ensure long-term stability of the pipeline. The pipe was installed with careful attention to slope and connection points, tying seamlessly into the existing system. Final phases included backfilling, compaction, and site restoration, leaving the area in stable working condition.



*Newly installed pipe at Lateral 24  
Photo credit : Evan Overson, November 2023*

**Project Benefits:** The Lateral 24 pipeline has provided significant benefits to both the District and its water users. By eliminating seepage and preventing sand intrusion, the project reduces water loss and improves overall system efficiency.

Operationally, the pipeline greatly reduces maintenance requirements and minimizes damage to irrigation equipment caused by sediment. Water delivery is more consistent and reliable, particularly during periods of high demand. These improvements support better water management, reduce strain on the system, and contribute to long-term reliability and drought resilience.